## DECLARATION FOR PATENT APPLICATION

As a below named inventor, I hereby declare that: My residence, post office address and citizenship are as stated below next to my name. I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled Measuring Duct Offgas Temperatures To Improve Electrolytic Cell Energy Efficiency the specification of which is attached hereto was filed on \_\_\_\_\_ as Application Serial No. \_\_\_\_\_ and was amended on \_\_\_\_\_ (if applicable). I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56. I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed: Prior Foreign Application(s) **Priority Claimed** (Day/Month/Year Filed) (Number) (Country) Yes No (Day/Month/Year Filed) (Number) (Country) Yes No I hereby claim the benefit under Title 35, United States Code, §119(e) or §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application: (Appln. Serial No.) (Filing Date) (Status—patented, pending, abandoned) (Filing Date) (Appln. Serial No.) (Status—patented, pending, abandoned) I hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: Tracey D. Beiriger (Reg. No. 37402), Glenn E. Klepac (Reg. No. 26474), Matthew W. Smith (Reg. No. 35366), Edward L. Levine (Reg. No. 28097), David W. Pearce-Smith (Reg. No. 31285), Gary P. Topolosky (Reg. No. 31888),

David P. Maivald (Reg. No. 42831), Gary A. Nitowski (Reg. No. 52497)

Alcoa Inc.

Address all telephone calls to Glenn E. Klepac, Esq. at telephone no. (724)337-2770

Alcoa Technical Center
100 Technical Drive

Alcoa Center, PA 15069-0001

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Full name of sole or firs	st inventor Michael L. Slaugenhaupt	
Inventor's signature	Mish L. Slaugenhops	Date 8/20/03 Citizenship U.S.A.
Post Office Address	Alcoa Inc.	
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	•	
Full name of second join	nt inventor, if any	
Inventor's signature	Jay M. Buggemen	Date 8/20/03
Residence Harrison	City/PA	_ Citizenship U.S.A.
Post Office Address	Alcoa Inc.	
	Alcoa Technical Center	•
	100 Technical Drive	
	Alcoa Center, PA 15069-0001	

## ASSIGNMENT

In consideration of One Dollar (\$1.00), and other good, and valuable considerations, the receipt of which is hereby acknowledged, and intending to be legally bound hereby, we, Michael L. Slaugenhaupt and Jay N. Bruggeman; of Apollo, in the County of Westmoreland and State of Pennsylvania; and of Harrison City, in the County of Westmoreland and State of Pennsylvania; respectively

Hereby sell, assign and transfer to Alcoa Inc., a corporation of the state of Pennsylvania, having a place of business at Pittsburgh, in the County of Allegheny, and State of Pennsylvania, its successors, assigns, and legal representatives, our entire right, title and interest, for all countries, in and to any and all improvements which are disclosed but not claimed, and any and all improvements which are disclosed but not claimed, in the application for United States Patent, Serial No. New Filing, Filed Herewith entitled "Measuring Duct Offgas Temperatures To Improve Electrolytic Cell Energy Efficiency" (Atty. Docket No. 02-3247) and in and to said application and all divisional, continuing, substitute, renewal, reissue, and all other applications for Letters Patent which have been or shall be filed on any of said improvements disclosed in said application; and in and to all original and reissued patents which have been or shall be issued on said improvements;

Authorize and request my attorney to insert above the filing date and application number when they become known;

Authorize and request the Commissioner of Patents and Trademarks to issue to said Assignee, Alcoa Inc., its successors, assigns and legal representatives, in accordance with this assignment, any and all United States Letters Patent on said improvements, or any of them disclosed in said application;

Agree that, when requested, without charge to but at the expense of said Assignee, its successors, assigns and legal representatives, to carry out in good faith the intent and purpose of this assignment, we will, for all countries execute all divisional, continuing, substitute, renewal, reissue, and all other patent applications on any and all said improvements; execute all rightful oaths and other papers; communicate to said Assignee, its successors, assigns, and representatives, all facts known to us relating to said improvements and the history thereof; testify in all legal proceedings; and generally do everything possible which said Assignee, its successors, assigns or representatives shall consider desirable for aiding in securing, maintaining and enforcing proper patent protection for said improvements, and for vesting title to said improvements and all

applications for patents and all patents on said improvements, in said Assignee, its successors, assigns and legal representatives.

Covenant with said Assignee, its successors, assigns and legal representatives that we have made to others no assignment, grant, mortgage, license or other agreement affecting the rights and property herein conveyed, and that we have full right to convey the same as herein expressed.

Jay N. Bruggeman

State of Pennsylvania	)
•	)SS
County of Westmoreland	)

Before me this 20th day of August 2003, personally appeared Michael L. Slaugenhaupt, to me personally known to be the person who is described in and who executed the above instrument, and he acknowledged to me that he executed the same of his own free will for the purposes therein set forth.

Notary Public

State of Pennsylvania

County of Westmoreland

Notarial Seal
Janette M. Smith, Notary Public
Upper Burrell Twp., Westmoreland County
My Commission Expires Mar. 14, 2005
Mamber, Pennsylvania Association of Notaries

Before me this 20th day of August 2003, personally appeared Jay N. Bruggeman, to me personally known to be the person who is described in and who executed the above instrument, and he acknowledged to me that he executed the same of his own free will for the purposes therein set forth.

Notary Public

Notarial Seal
Janette M. Smith, Notary Public
Upper Burrell Twp., Westmoreland County
My Commission Expires Mar. 14, 2005

Member, Pennsylvania Association of Notaries